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## PATENT SPECIFICATION



Application Date: Sept. 26, 1934. No. 27584/34.

443,040

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Complete Specification Accepted: Feb. 20, 1936.

## PROVISIONAL SPECIFICATION

## Improvements in Pipe Joints

I, MAY HILDA HUNT, of British Nationality, of 25, Penrith Avenue, Giffnock, Renfrewshire, do hereby declare the nature of this invention to be as follows:—

This invention relates to improvements in pipe joints, particularly for pipes of aluminium, aluminium alloy or other metal or material employed for the conduction of gases or liquids, and has for an object to provide a fluid-tight junction between the pipe and a coupling piece or the like.

According to the invention, the pipe having an outwardly curled or flared end which enters a socket presented by the coupling piece is maintained in engagement with an annular seat of male conical formation at the base of the socket by an externally threaded gland member engaging internal screw-threads on the socket, said gland member embracing the pipe and bearing at its inner end on the

concave face of the curl or flare of the pipe.

The seat engaged by the curled or flared end of the pipe is or may be provided with annular grooves of triangular section coaxial with the pipe and the passage through the coupling pipe; the end of the gland member engaging the curl or flare of the pipe is or may be formed with annular ribs which bite into the metal of the curled or flared end of the pipe.

With this arrangement the flared or curled end of the pipe is so deformed under the pressure exercised in tightening the gland member that in effect a labyrinth joint is formed.

Dated this 25th day of September, 1934.

CRUIKSHANK & FAIRWEATHER,  
86, St. Vincent Street, Glasgow, C.2,

and  
65/66, Chancery Lane, London, W.C.2.  
Agents for the Applicant.

## COMPLETE SPECIFICATION

## Improvements in Pipe Joints

I, MAY HILDA HUNT, of British Nationality, of 25, Penrith Avenue, Giffnock, Renfrewshire, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to improvements in pipe joints, particularly for pipes of aluminium, aluminium alloy or other metal or material employed for the conduction of gases or liquids, and has for an object to provide a fluid-tight junction between the pipe and a coupling piece or other pipe-fitting.

It has been previously proposed to construct a pipe joint in which an outwardly curled or flared pipe end flange is nipped between an annular seat of male conical formation and the inner surface of a gland nut which screws into an outer coupling member, the annular seat of male conical formation and the inner sur-

face of the gland nut being formed with flange-engaging ribs and grooves.

According to the invention, an outwardly curled or flared pipe end flange is nipped between an annular seat of male conical formation at the base of a socket and the inner end face of a gland nut screwing into the socket, said seat and said inner end face of said gland nut being formed with annular serrations adapted to bite into said flange.

With this arrangement the flared or curled pipe end flange is so deformed under the pressure exercised in tightening the gland nut that in effect a labyrinth joint is formed.

The invention is illustrated in the accompanying drawings in which Fig. 1 is a detail section of a pipe joint and Figs. 2 to 4 sectional views on a smaller scale showing practical embodiments of the pipe joint.

As best shown in Fig. 1, the pipe 1 is

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formed with an outwardly curled or flared pipe end flange 2 which is nipped between an annular seat 3 of male conical formation at the base of a socket presented by a coupling piece 4, and the inner end face of a gland nut 5 screwing into the socket. The seat 3 is formed with annular serrations 6 and the inner end face of the gland nut 5 is formed with annular serrations 7, said serrations being coaxial with the pipe 1 and being adapted to bite into the flange 2 so as to provide a labyrinth fluid-tight joint.

Fig. 2 shows three pipes 1 coupled to a tee-piece 8.

Fig. 3 shows a single pipe 1 coupled to one end of a coupling piece 9 the other end of which is fitted with a nipple 10 and coupling nut 10<sup>a</sup>.

Fig. 4 shows a single pipe 1 coupled to a coupling piece 11 fitted with a control cock 12 and a nose-piece 13 for connection to a rubber tube or the like.

Having now particularly described and

ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

(1) A pipe joint in which an outwardly curled or flared pipe end flange is nipped between an annular seat of male conical formation at the base of a socket and the inner end face of a gland nut screwing into the socket, said seat and said inner end face of said gland nut being formed with annular serrations adapted to bite into said flange.

(2) A pipe joint constructed as herein-described with reference to Fig 1 or Fig. 2 or Fig. 3 or Fig. 4 of the accompanying drawings.

Dated this 26th day of August, 1935.  
CRUIKSHANK & FAIRWEATHER,  
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443,040 COMPLETE SPECIFICATION

SHEET 1

[This Drawing is a reproduction of the Original on a reduced scale.]

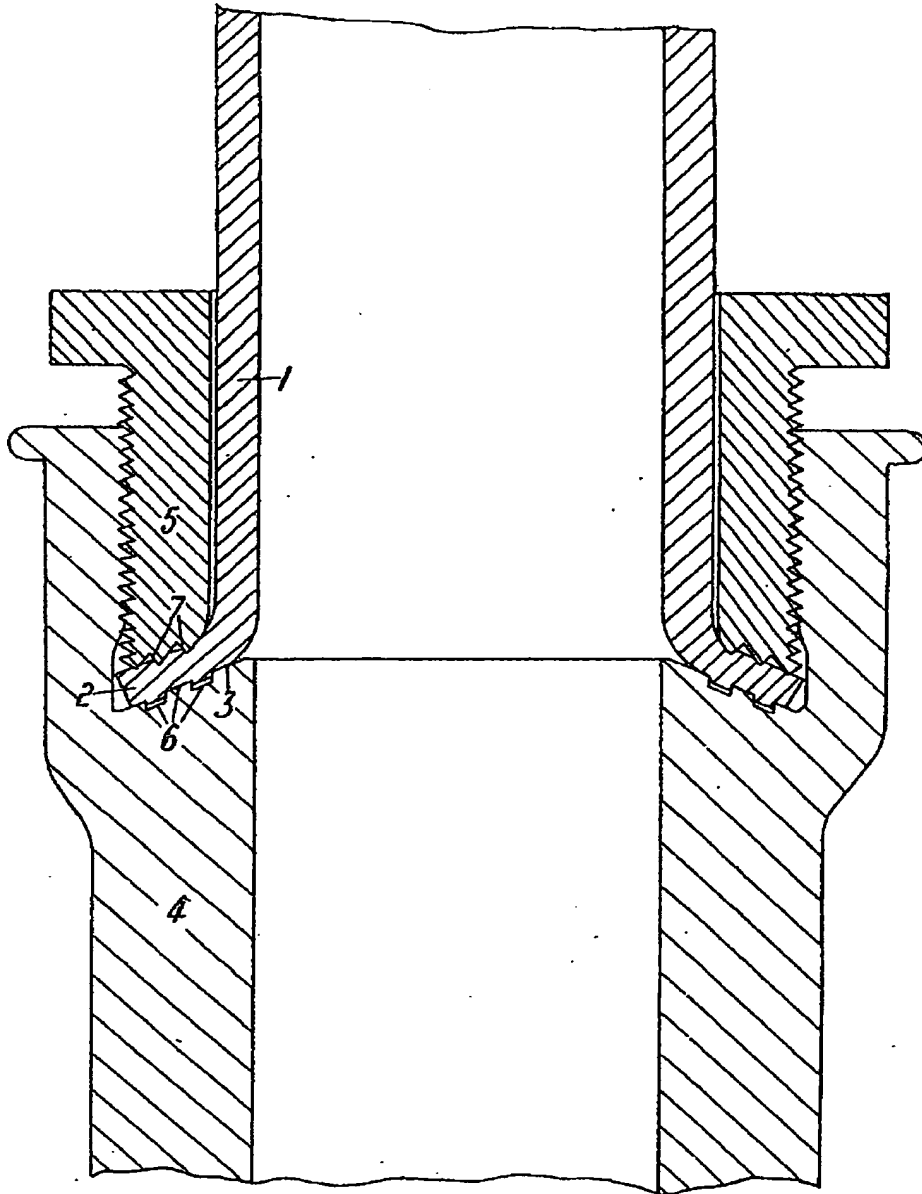
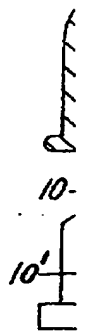
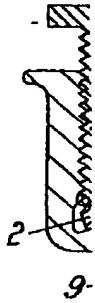


FIG. 1.



2 SHEETS

SHEET 2

SHEET 1

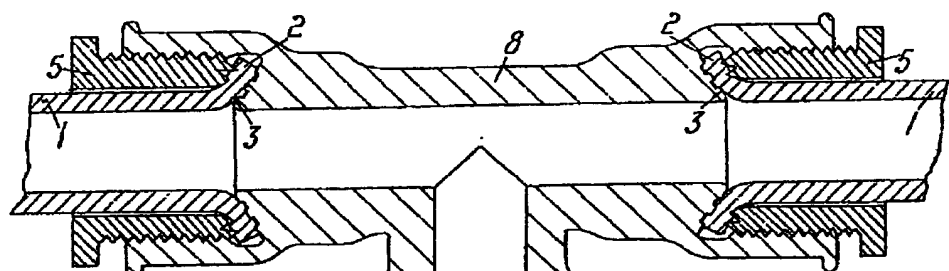


FIG. 2.

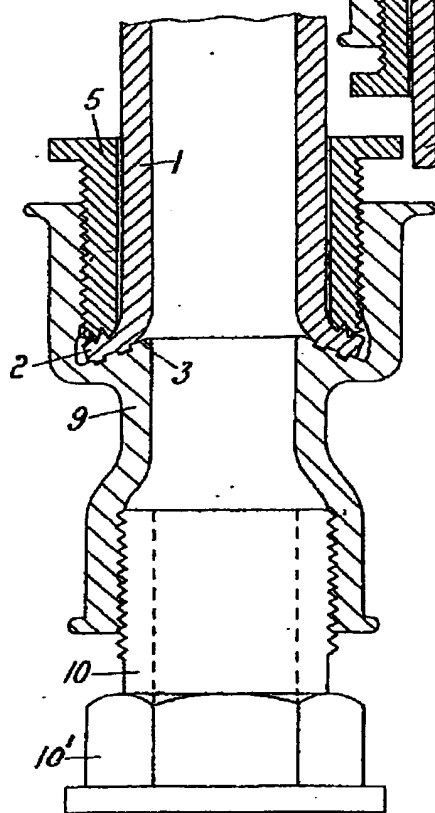


FIG. 3.

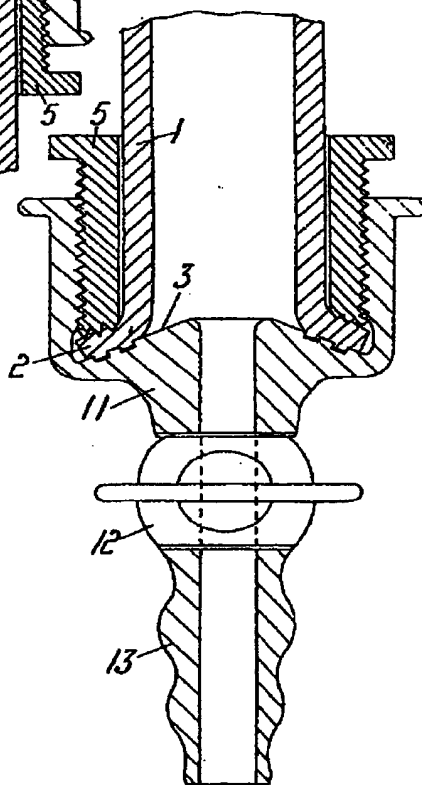


FIG. 4.

Malby &amp; Sons, Photo-Lith.

